



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Seiki TAKAHASHI et al.
Title: AUTOMATIC BRAKE SYSTEM FOR A VEHICLE
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the New **Pre-Appeal Brief Conference Pilot Program**, announced July 11, 2005, this Pre-Appeal Brief Request is being filed together with a Notice of Appeal. Applicant respectfully requests reconsideration of the present application in view of the reasons that follow.

REMARKS

Claims 1, 4-10, 12, 14-16, and 19-27 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication 2003/0067219 ("Seto"). For at least the following reasons, this rejection is traversed.

Claim 1 recites, among other things, an automatic brake system comprising a forward-monitoring unit and a control unit. The control unit varies an assumed characteristic of manual steering operation in accordance with a condition of a path where the vehicle is traveling and executes an automatic braking control operation to avoid a potential collision with the obstacle, based on the assumed manual steering operation characteristic. The assumed manual steering operation characteristic that is varied comprises at least one of a maximum steering angle and a steering speed. Seto does not teach or suggest this combination of features.

For example, Seto does not vary an assumed manual steering operation characteristic of a maximum steering angle or a steering speed. Quite the contrary, Seto makes the assumption that the driver turns a steering wheel to a maximum steered position at a certain steering speed. (See paragraph 0052 of Seto.) The PTO states that:

[w]ith respect to the manual steering characteristic which is varied comprising at least one of a maximum steering angle and a steering speed, please refer to figure 5 of Seto et al which is clearly labeled as showing a maximum steered angle along the vertical axis, and the included angle at the beginning portion of the graph representing and labeled as steering speed, before it reaches the maximum steering angle. (Page 4 of the Office Action.)

It is respectfully submitted that Fig. 5 of Seto merely shows the change in the steered angle as a function of elapsed time. The maximum steering angle shown in Fig. 5 merely indicates the point where the steering angle is at its maximum position. However, the maximum steering angle is fixed as a horizontal line, i.e., is a constant. Fig. 5 of Seto does not show that the maximum steering angle is varied at all.

Furthermore, Seto explicitly states that the steering wheel is turned to a maximum steered position “at a certain steering speed” (paragraph 0052 of Seto) but there is nothing to teach or suggest that the steering speed is varied. Indeed, the constant angle of steering speed in Fig. 5 of Seto would indicate that the steering speed is constant.

Thus, Seto does not teach or suggest an assumed manual steering operation characteristic that is varied comprising at least one of a maximum steering angle and a steering speed. Therefore, Seto does not teach or suggest all the features of claim 1.

Claim 10 recites, among other things, an automatic brake system comprising forward-monitoring means and control means. The control means is for varying an assumed characteristic of manual steering operation in accordance with a condition of a path where the vehicle is traveling and executing an automatic braking control operation to avoid a potential collision with the obstacle, based on the assumed manual steering operation characteristic. The assumed manual steering operation characteristic that is varied comprises at least one of a maximum steering angle and a steering speed. As previously mentioned, Seto does not teach or suggest an assumed manual steering operation characteristic of a maximum steering angle or a steering speed that is varied. Thus, Seto does not teach or suggest all the features of claim 10.

Claim 12 recites, among other things, an automatic brake system comprising a forward-monitoring unit, a control unit, and a brake control unit. The control unit varies an

assumed characteristic of manual steering operation in accordance with a condition of the path where the vehicle is traveling and executes an automatic braking control operation to avoid a potential collision with the obstacle, based on the assumed manual steering operation characteristic and the geometrical relationship. The assumed manual steering operation characteristic that is varied comprises at least one of a maximum steering angle and a steering speed. As previously mentioned, Seto does not teach or suggest an assumed manual steering operation characteristic of a maximum steering angle or a steering speed that is varied. Thus, Seto does not teach or suggest all the features of claim 12.

As to the independent claims 1, 10, and 12, it is noted that the PTO has stated that:

Applicant's arguments with respect to at least the independent claims appear to suggest that an interpretation of these claims includes or requires that a control unit for the "automatic braking system" performs the manual steering operation in accordance with a condition of a path which a vehicle is traveling so as to execute the automatic braking operation to avoid a potential collision, however at best the claim language is ambiguous with respect to the steering operation...(Page 5 of the Office Action.)

However, it is respectfully submitted the PTO's analysis of Applicant's arguments is incorrect. It is clear from the claim language and Applicant's arguments that the control unit of claim 1 varies an assumed manual steering operation characteristic (at least one of a maximum steering angle and a steering speed) in accordance with a condition of a path where the vehicle is traveling and executes an automatic braking control operation based on the assumed manual steering operation characteristic, the control means of claim 10 varies an assumed characteristic of manual steering operation (at least one of a maximum steering angle and a steering speed) in accordance with a condition of a path where the vehicle is traveling and executes an automatic braking control operation based on the assumed manual steering operation characteristic; and the control unit of claim 12 varies an assumed characteristic of manual steering operation in accordance with a condition of the path where the vehicle is traveling and executes an automatic braking control operation based on the assumed manual steering operation characteristic (at least one of a maximum steering angle and a steering speed) and the geometrical relationship. The claim language of claims 1, 10, and 12 does not recite that the control unit performs a manual steering operation, and Applicant's previous arguments do not assert that such a feature is part of the claimed invention of claims 1, 10, and 12.

Claims 4-9, 14-16, and 19-27 depend from and contain all the features of claim 1 or claim 12, and are allowable for at least the reasons set forth above, without regard to the further patentable features contained therein.

Additionally, in relation to dependent claims 5-6, 8-9, 22-23, and 25-26, there is no teaching or suggestion of an “avoidance space width detecting unit that detects widths of spaces on the sides of the obstacle.” Seto merely determines the vehicle interval distance between the host vehicle and the obstacle (i.e., the preceding vehicle) and a lateral moved distance. The lateral moved distance of Seto is not the same thing as detecting the widths of spaces on the sides of the obstacle. The “avoidance space width” is an available space through which the host vehicle is to pass, while the “lateral distance” is merely a distance that is necessary for the host vehicle to move in the lateral direction. Seto makes no mention whatsoever about detecting the widths of the available spaces on the sides of the obstacle.

The PTO asserts in a conclusory fashion that Seto discloses the detection of an avoidance space width and then cites 51 paragraphs! (Pages 4-5 of the Office Action.) The passages of Seto cited by the PTO above do not teach an avoidance space width detecting unit that detects the widths of spaces on the sides of the obstacle or that such widths are being measured or determined. Indeed, nowhere in Seto does it teach or suggest such a unit, measurement, or determination.

The PTO also asserts that “figure 2 of Seto et al. shows consideration of both collision avoidance by braking and collision avoidance by steering action, of which the requirement of an available passing width around an obstacle is a necessary and inherent component in making that determination. (Pages 5-6 of the Office Action)(emphasis added.) However, the PTO had not complied with the requirements of establishing a case of inherency, as set forth in MPEP 2112 which reads:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)...“To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted)...“In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior

art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)
(emphasis in original).

The PTO has not established or provided any basis or support, in Seto or any other prior art, for the statement that the widths of spaces on the sides of the obstacle are being detected, measured, etc.; thus no basis in fact has been established. Also, no technical reasoning has been set forth to support the determination that such a detection of widths necessarily flows from the teachings of Seto. Indeed, the widths of the spaces on the sides of the obstacle are not presented in any listing of variables or any equations in Seto. Because Seto does not teach (inherently or explicitly) that the widths of spaces on the sides of the obstacle are being detected, Seto does not teach all the features of claims 5-6, 8-9, 22-23, and 25-26 for at least this additional reason.

For at least these reasons, favorable reconsideration is respectfully requested.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application is respectfully requested.

Respectfully submitted,

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FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 672-5426
Facsimile: (202) 672-5399

By Matthew J. Kremer

Glenn Law
Registration No. 34,371

Matthew J. Kremer
Registration No. 58,671